

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A dielectric fluid for an electrical device, said dielectric fluid comprising:
- at least 75% of a high oleic acid triglyceride composition comprising fatty acid components of at least 75% oleic acid;
 - 0.1 to 3% antioxidant additives comprising:
 - an alkylated diphenylamine; and
 - one or more antioxidant compounds selected from the group consisting of butylated hydroxy toluene (BHT), butylated hydroxy anisole (BHA), mono-tertiary butyl hydroquinone (TBHQ) and combinations thereof;
 - less than 10% diunsaturated fatty acid component C16-C22;
 - less than 3% triunsaturated fatty acid C16-C22 component; and
 - less than 8% saturated fatty acid component C16-C22; and
 - wherein said triglyceride composition is further characterized by the properties of:
 - a dielectric strength of at least 35 KV/100 mil gap,
 - a dissipation factor of less than 0.05% at 25°C, NG
 - acidity of less than 0.03 mg KOH/g,
 - electrical conductivity of less than 1 pS/m at 25°C, NG
 - a flash point of at least 250°C, NG and
 - a pour point of at least -15°C NG.

2. (Currently Amended): The ~~high-oleic acid triglyceride composition~~ dielectric fluid of claim 1 comprising wherein the fatty acid components of the high oleic acid triglyceride composition comprise
- at least 75% oleic acid
 - less than 10% linoleic acid,
 - less than 3% linolenic acid,

less than 4% stearic acid, and
less than 4% palmitic acid.

3. (Currently Amended): The ~~high oleic acid triglyceride composition~~ dielectric fluid of claim 2 wherein said triglyceride composition is further characterized by the properties of:

a dielectric strength of at least 40 KV/100 mil gap,
a dissipation factor of less than 0.02% at 25°C NG,
acidity of less than 0.02 mg KOH/g,
electrical conductivity of less than .25 pS/m at 25°C NG,
a flash point of at least 300°C NG, and
a pour point of at least -20°C NG.

Claims 4-39 (Canceled).

40. (Currently Amended): An electrical apparatus comprising the electrical insulation dielectric fluid of claim 22 1.

41. (Original): The electrical apparatus of claim 40 wherein said apparatus is an electrical transformer, an electrical capacitor or an electrical power cable.

42. (Currently Amended): An electrical apparatus comprising the electrical insulation dielectric fluid of claim 28 46.

43. (Currently Amended): A process for preparing the ~~high oleic acid triglyceride composition~~ dielectric fluid of claim 1 comprising the steps of:
mixing 10 parts refined, bleached and deodorized high oleic acid triglyceride with 1 part or less by weight neutral clay to form a mixture,
maintaining said mixture for at least about 20 minutes, and
filtering said mixture to remove said clay, and
adding the antioxidant additives to the filtered mixture.

44. (Original): The process of claim 43 wherein said clay is 30/60 mesh size

clay.

45. (New): The dielectric fluid of claim 1, wherein the one or more antioxidant compounds consists of tertiary butyl hydroquinone (TBHQ).

46. (New): The dielectric fluid of claim 45, wherein the antioxidant additives further comprise a high molecular weight poly phenol antioxidant.

47. (New): The dielectric fluid of claim 1, further comprising a synthetic ester.

48. (New): A process for preparing the dielectric fluid of claim 1, comprising:
heating the triglyceride composition;
contacting the heated triglyceride composition with clay;
filtering the triglyceride composition to remove clay particles therefrom; and
adding the antioxidant additives to the filtered triglyceride composition.

49. (New): The process of claim 48, further comprising:
lowering the temperature of the filtered triglyceride composition to 0°C or below;
and filtering the triglyceride composition, thereby providing the triglyceride composition with a pour point below -25°C.

50. (New): A dielectric fluid for an electrical device, said dielectric fluid comprising:

0.1 to 3% antioxidant additives comprising one or more antioxidant compounds selected from the group consisting of butylated hydroxy toluene (BHT), butylated hydroxy anisole (BHA), mono-tertiary butyl hydroquinone (TBHQ) and combinations thereof; and

at least 75% high oleic acid vegetable oil selected from the group consisting of sunflower oil and canola oil, wherein said vegetable oil is purified by:

heating the vegetable oil;
contacting the heated vegetable oil with clay; and
filtering the vegetable oil to remove clay particles therefrom,

whereby said vegetable oil has the properties of:

a dielectric strength of at least 35 KV/100 mil gap,
a dissipation factor of less than 0.05% at 25°C,
acidity of less than 0.03 mg KOH/g,
electrical conductivity of less than 1 pS/m at 25°C,
a flash point of at least 250°C, and
a pour point of at least -15°C.

51. (New): The dielectric fluid of claim 50, wherein the vegetable oil comprises sunflower oil.

52. (New): The dielectric fluid of claim 50, wherein the vegetable oil has fatty acid components of greater than 60% oleic acid.

53. (New): The dielectric fluid of claim 52, wherein the vegetable oil has fatty acid components of at least 75% oleic acid.

54. (New): The dielectric fluid of claim 53, wherein the antioxidant additives further comprise an alkylated diphenylamine.

55. (New): The dielectric fluid of claim 50, wherein after the vegetable is purified, the vegetable is further processed by:
lowering the temperature of the filtered vegetable oil to 0°C or below; and
filtering the vegetable oil, thereby providing the vegetable oil with a pour point below -25°C.